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CENTRAL INTELLIGENCE AGENCY

REPORT

STAT

INFORMATION REPORT

COUNTRY USSR

DATE DISTR. 12 May 1948

SUBJECT Scientific Research

NO. OF PAGES 2

PLACE ACQUIRED USSR

NO. OF ENCLS. (LISTED BELOW) 1709.3 JH

DATE OF INFORMATION 1945-47

SUPPLEMENT TO REPORT NO.

STAT

THIS IS UNEVALUATED INFORMATION FOR THE RESEARCH USE OF TRAINED INTELLIGENCE ANALYSTS

SOURCE Documentary as indicated. (Information specifically requested.)

RECENTLY PUBLISHED SOVIET RESEARCH ON BACTERIAL ANTIGENS AND TOXINS

"Chemical Nature of the Group Antigens B_1 and B2 of Human and Animal Blood," P.N. Kosyakov

"Byull Eksptl Biol i Med" Vol 23, No 2, 1947, pp 93-5

Chemical semblance between B_2 antigens of human subjects and animals is shown. Both are soluble in alcohol, ether, and chloroform and insoluble in acetone. Alcohol, ether, and chloroform solutions of B_2 are free from proteins and carbohydrates. Aqueous B_2 solutions form stable emulsions. From these properties it was assumed that these specific substances in human subjects and animals are lipoids. The other antigen component, B_1, has a different chemical nature. It is not found in alcohol, ether, and chloroform solutions, is soluble in H_2O and, therefore, does not belong to the lipoids. The true nature of B_1 has not yet been discovered. (IT79)

"Concerning the Mechanism of Innate Immunity of Some Reptiles to Bacterial Toxins," A. G. Kratinov, 3 pp

"Byull Eksptl Biol i Med" Vol 23, No 2, Feb 1947

Results of experiments with reptiles. (1778)

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"Toxin Formation in B. Perfringens," L. A. Baskina, D.I. Zakharina and [illegible]. Galbir, Leningrad Vaccine Inst

"Zhur Mikrobiol, Epidemiol i Immunobiol" No 7-8, 1945, pp 19-22

Stabilization at the beginning of rise of pH in the course of growth of B. perfringens provides an index to the point of maximum toxin formation. Preliminary freezing of the liver used in making liver bouillion for production of toxin raises appreciably the toxin virulence, as does the addition of Fe. Na pyruvate has somewhat lesser effect than Fe, while addition of cysteine or glucose gave irregular increases. Addition of vitamin C failed to increase virulence.

"Chemistry and Biochemistry of Lipoid Antigens: XI. Examination of Chemical Nature of 'True Wasserman Substance,'" M.I. Ravich-Shcherbo and N. V. Piskunov, Kafedra Biokhimii Kurskogo Gosudarst. Meditsinskogo Inst

"Zhur Mikrobiol, Epidemiol i Immunobiol., 1945, No 4-5, 26-9

Data are presented to show that the so-called "true Wasserman substance," prepared by Fisher's method, is not a chemical entity but can be sharply separated into two fractions. Fraction A is a carbohydrate-phosphatide complex, while fraction B is composed of carbohydrate, purines, and pyrimidines, and nonlipoid P. Fraction A is amorphous, while fraction B is crystalline and appears to be a nulcotide.

"XII. Examination of Immunobiological Properties of 'True Wasserman Substance,'" M.I. Ravich-Shcherbo, Kafed Biokhimii Kurskskogo Gosudarst Med Inst, ibid, 30-4

"True Wasserman substance," obtained from the heart tissue of bulls and human subjects by Fisher's method, acts like a true antigen in the immunization of rabbits. Similar preparations from the kidney and brain do not show this action. Fraction A of the "true Wasserman substance," the carbohydrate-phospholipide fraction, is immunologically active, while fraction B, the crystalline nucleotide material, has no such activity.

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